IN THE CLAIMS:

1. (currently amended) A system for continuously sensing mechanical activity of a heart and adjusting a cardiac resynchronization pacing therapy based on the sensed mechanical activity, comprising:

a processor-based electronic cardiac pacing engine; and

a single tensiometric sensor adapted to ~~simultaneously~~ detect cardiac contractions of at least a left atrial chamber, a left ventricular chamber, and a right ventricular chamber, said single tensiometric sensor adapted to provide an output signal corresponding to said detected cardiac contractions to the processor-based electronic cardiac pacing engine to controllably produce synchronous contractions of the left ventricular chamber and the right ventricular chamber.

2. (currently amended) A system according to claim 1, wherein said single ~~mechanical~~ tensiometric sensor is adapted to couple to at least one of the following:

a portion of a coronary sinus ostium,

a portion of a coronary sinus,

a portion of a cardiac vein.

3. (currently amended) A system according to claim 1, further comprising an additional ~~mechanical~~ tensiometric sensor adapted to mechanically couple to a discrete portion of the right ventricular chamber and wherein said additional ~~mechanical~~ tensiometric sensor provide a signal to the processor-based electronic cardiac pacing engine.

4. (currently amended) A system according to claim 1, wherein the single tensiometric sensor comprises one of a strip of piezoelectric material and a

variable resistivity material, and wherein said single tensiometric sensor couples to a distal portion of a cardiac pacing lead.

5. (previously presented) A system according to claim 4, wherein said cardiac pacing lead includes at least one high voltage coil-type electrode.

6. (currently amended) A system according to claim 4, wherein the single tensiometric sensor further comprises a transvenous delivery mechanism coupled to said single tensiometric sensor.

7. (previously presented) A system according to claim 6, wherein said transvenous delivery mechanism comprises one of: a stylet, a single lumen delivery catheter, and a guidewire.

8. (currently amended) A system according to claim 3, wherein the additional ~~mechanical~~ tensiometric sensor comprises an accelerometer sensor.

9. (canceled)

10. (previously presented) A system according to claim 8, further comprising a transvenous delivery mechanism coupled to said accelerometer sensor.

11. (original) A system according to claim 10, wherein said transvenous delivery mechanism comprises one of: a stylet, a single lumen delivery catheter, a guidewire.

12. (original) A system according to claim 1, wherein the processor-based electronic cardiac pacing engine comprises an implantable pulse generator.

13. (original) A system according to claim 1, wherein the processor-based electronic cardiac pacing engine comprises an implantable cardioverter-defibrillator.

14. (original) A system according to claim 1, wherein the processor-based electronic cardiac pacing engine further comprises a programmable medium for executing computer readable instructions.

15. (previously presented) A system according to claim 14, wherein the programmable medium includes instructions for delivering one of: a bradycardia pacing modality, a tachycardia pacing modality, a cardiac resynchronization therapy modality, a single-chamber pacing modality.

16. (previously presented) A system according to claim 14, wherein the programmable medium includes instructions for delivering a cardiac resynchronization therapy modality.

17. (original) A system according to claim 1, wherein the processor-based electronic cardiac pacing engine comprises an external pulse generator.

18.-20. (canceled)